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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Traugott MARQUARDT

U.S. Patent Application No. 10/629,703

Filed: July 30, 2003

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Group Art Unit: 3635

Examiner: Chi Q Nguyen

For: UNDERFLOOR CABLE JUNCTION UNIT AND COMPUTER CENTER EQUIPPED WITH
SUCH JUNCTION UNITS

RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notice of Non-Compliant Appeal Brief dated April 4, 2008, applicant submits herewith a new section VIII. Claims Appendix.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN HAM & BERNER, LLP

Traugott MARQUARDT

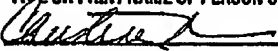

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Serial No. 10/629,703

VIII. Claims Appendix

1. The underfloor cable junction unit of claim 9 wherein the space beneath the raised floor is arranged as a cooling air supply duct for devices adapted to be arranged on the raised floor, the raised floor having floor panels with cooling air outlets and the connectors are for connecting data cables for the devices to each other, the junction unit having (a) a top side, wherein the top side or at least a major part of it is open to enable passage of cooling air through the top side toward a floor panel of the raised floor, the panel including cooling air outlets, (b) a structure for mounting the junction unit in the supply duct, and (c) lateral sides, the lateral sides or at least a major part of them being open for enabling cooling air to flow through the lateral sides and thereby form part of the cooling air supply duct while the cable junction unit is installed in the duct.

2. The underfloor cable junction unit of claim 1, wherein the mounting structure is arranged to be mounted on a base floor on which the raised floor is posted.

4. The underfloor cable junction unit of claim 1, having opposite faces and comprising rows of connectors for data cables, the rows being arranged on at least two levels, one above the other, at least one of the faces of the junction unit having open slits between the rows of connectors to facilitate the passage of cooling air through the junction unit from face to face.

6. The underfloor cable junction unit of claim 9 wherein the unit has opposite faces on different horizontally spaced members and comprising rows of connectors arranged on at least two levels, one above the other, both of the faces including open

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slits between the rows of connectors to provide passage of cooling air in the duct through the junction between both of the faces, the open slits thereby forming part of the cooling air supply duct while the cable junction unit is installed in the duct.

7. The underfloor cable junction unit of claim 6, the junction unit having a top side, wherein the top side or at least a major part of it is open to enable the passage of cooling air through the top side and thereby form part of the cooling air supply duct while the cable junction unit is installed in the duct.

8. The underfloor cable junction unit of claim 6, the junction unit having lateral sides, wherein the lateral sides or at least a major part of them are open and thereby form part of the cooling air supply duct while the cable junction unit is installed in the duct.

9. An underfloor cable junction unit for installation in a raised-floor system above a base floor, the space between the base floor and the raised floor being arranged as a cooling air supply duct, the junction unit having dimensions enabling the unit to be located between the base and raised floors, the unit having opposite faces on different horizontally spaced members and comprising slide-in data connector units able to be slid from outside into the junction unit at at least one of its faces, the slide-in connector units being arranged on at least two levels in the junction unit, one above the other and being spaced vertically from each other to provide passage of cooling air in the duct through the junction unit between the opposite faces.

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10. The underfloor cable junction unit of claim 9, wherein the slide-in connector units are fixed to the junction unit in a dismountable manner to enable them to be removed, replaced or changed in their position or enable further slide-in units to be mounted, without dismounting the junction unit.

11. The underfloor cable junction unit of claim 9, wherein the slide-in connector units have data connector rows, at least some of the connector rows, including at least one of copper data cable connector rows and optical fiber connector rows.

12. The underfloor cable junction unit of claim 11, having optical fiber connector rows with connectors for enabling pre-fabricated optical break-out cables with pre-installed cable connectors to be plugged-in at the permanent-cable connection side of the junction unit connectors, without using a splice box.

13. The underfloor cable junction unit of claim 9, arranged to accommodate slide-in connector units on the two opposing faces of the junction unit.

14. The underfloor cable junction unit of claim 9 wherein the junction unit has an inside, and wherein connectors of the slide-in connector units are arranged such that permanent cable connections are at an inner side of the connectors facing the inside of the junction unit and plug-in patch cable connections are at an outward-facing side of the connectors.

15. The underfloor cable junction unit of claim 9 wherein the slide-in connector units have rows of connectors, the connectors including enclosures.

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16. The underfloor cable junction unit of claim 9 wherein the junction unit has a frame structure with a frame, the frame comprising portal front parts and sidebars connecting the front parts, such that the portal front parts are opposite each other.

17. The underfloor cable junction unit of claim 16, wherein both front parts are open at least at their lower parts to enable bunches of permanent data cables to pass through the junction unit; whereby the permanent cable bunches are encompassed and thereby guided.

18. The underfloor cable junction unit of claim 16, wherein several mounting positions are provided for the sidebars to enable them to be mounted at different heights.

19. The underfloor cable junction unit of claim 16, wherein the sidebars are mounted to the front parts in a dismountable manner to enable them to be replaced or their mounting height to be changed.

20. The underfloor cable junction unit of claim 9 wherein the junction unit has a frame structure with a frame, the frame comprising portal front parts and sidebars connecting the front parts, such that the portal front parts are opposite each other, the underfloor cable junction unit being arranged to be height adjustable.

21. The underfloor cable junction unit of claim 9 wherein the junction unit has a frame structure with a frame, the frame comprising portal front parts and sidebars connecting the front parts, such that the portal front parts are opposite each other, the underfloor cable junction unit being arranged to be width adjustable.

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22. The underfloor cable junction unit of claim 9 wherein the junction unit has faces and lateral sides, at least one of the faces including rows of data connectors, and at least one horizontal sidebar is arranged at each of the lateral sides, the at least one horizontal sidebar being arranged to enable permanent cables coming from the inner side of said connector rows to pass above and outwardly of the sidebar downwardly to a base floor and to be fixed to the sidebar.

23. The underfloor cable junction unit of claim 22, further comprising patch cable guiding elements arranged laterally at at least one of the faces of the junction unit, said guiding elements enabling patch data cables plugged into data connectors of the connector rows to be guided laterally on the face of the junction unit downwardly to a base floor.

24. The underfloor cable junction unit of claim 22, wherein both faces are open at least at their lower parts to enable bunches of permanent data cables to pass through the junction unit, whereby the permanent cable bunches are encompassed and thereby guided.

25. The underfloor cable junction unit of claim 9 wherein the junction is included in a computer center having a raised floor on which computers are arranged, said raised floor being included in the cooling air supply duct, the cooling air supply duct being for cooling the computers and having floor panels with cooling air outlets, said raised floor being equipped with underfloor data cable junction units by which the computers are connected to permanent data cables running under the raised floor, each junction unit having a top side, wherein the top side or at least a major part of it is

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open to enable passage of cooling air through the top side toward a floor panel with cooling air outlets.

26. The underfloor cable junction unit of claim 9 wherein the junction is included in a computer center having a raised floor on which computers are arranged, said raised floor including air outlets for supplying cooling air to the computers, space beneath the raised floor being included in the cooling air supply duct, the cooling air supply duct being for cooling the computers, said raised floor being equipped with at least one of the underfloor cable junction units that connects the computers to permanent data cables running under the raised floor, each junction unit having opposite faces and comprising rows of connectors arranged on at least two levels, one above the other, at at least one of the faces, wherein open slits are in at least one of the faces between the rows of connectors to facilitate passage of cooling air through the junction unit from face to face.

27. The underfloor cable junction unit of claim 9 wherein the junction is included in a computer center having a raised floor on which computers are arranged, said raised floor being equipped with at least one of the underfloor cable junction units that connects the computers to permanent data cables running under the raised floor.

28. The underfloor cable junction and computer center of claim 27, wherein each junction unit has a frame structure with a frame, the frame comprising portal front parts and sidebars connecting the front parts, such that the portal front parts are arranged opposite each other, the side bars carrying the slide-in connector units.

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29. The underfloor cable junction unit of claim 9 wherein the junction is included in a computer center having a raised floor on which computers are arranged, said raised floor being equipped with at least one of the underfloor cable junction units that connect the computers to permanent data cables running under the raised floor, each junction unit having faces and lateral sides, wherein at least one of the faces is equipped with rows of connectors, and at least one horizontal sidebar is arranged at each of the lateral sides, the at least one horizontal sidebar being arranged to enable permanent cables coming from the inner side of connector rows to pass above and outwardly of the sidebar downwardly to a base floor and to be fixed to the sidebar.

30. The underfloor cable junction and computer center of claim 29, further comprising:

active network elements and network element junction units, wherein the permanent data cables permanently connect the underfloor cable junction units and the network element junction units,

first patch cables for the connection of the computers with the underfloor cable junction units, and

second patch cables for the connection of the active network elements with the network element junction units.

31. The underfloor cable junction unit of claim 9 wherein the junction is included in a computer center having a raised floor on which computers are arranged, said raised floor including air outlets for supplying cooling air to the computers, space beneath the raised floor being arranged as the cooling air supply duct, the cooling air

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supply duct being for cooling the computers, said raised floor being equipped with at least one of the underfloor cable junction units that connect the computers to permanent data cables running under the raised floor, each junction unit having first, second, third, and fourth legs on a subfloor beneath the raised floor, the first and second legs being in a first plane, the third and fourth legs being in a second plane parallel to the first plane, the first and third legs being in a third plane at right angles to the first and second planes, and the second and fourth legs being in a fourth plane parallel to the third plane; a first sidebar connected between the first and second legs; a second sidebar connected between the third and fourth legs; the permanent data cables extending longitudinally in the direction of the first and second sidebars and between the legs; a first face part extending between the first and third legs; a second face part extending between the second and fourth legs; the slide-in units being on one of the face parts, the slide-in units including first data connectors having longitudinal axes extending parallel to the sidebars and connected to data cables having ends positioned at opposite sides of the first data connectors along the longitudinal axes, the junction unit being arranged so cooling air in the supply duct can flow under and over each of the sidebars and face parts, and an opening for flow of cooling air extending from just above the subfloor to an air outlet between the sidebars and face parts.

32. The junction unit and computer center of claim 31, wherein each of the face parts includes a row of second data connectors, the second data connectors having longitudinal axes extending parallel to the sidebars for connection to data cables having ends positioned at opposite sides of the second data connectors along the longitudinal axes.

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33. The underfloor cable junction unit of claim 1, which is arranged to be adjustable in width and height to enable lowering of the unit through any standard sized module opening which is present when a module panel of a discrete modular raised floor system is removed.

34. The unit of claim 9, in combination with the raised-floor system, wherein the unit is below the raised floor of the raised-floor system, and is on a structure on a base floor beneath the raised floor.

35. The unit of claim 16, in combination with the raised-floor system, wherein the unit is below the raised floor of the raised-floor system, and is on a structure on a base floor beneath the raised floor.

36. The underfloor cable junction unit of claim 9 wherein the raised floor has panels with cooling air outlets, the unit comprising first and second horizontally extending, elongated, spaced members extending generally parallel to each other, sidebars extending between first and second parallel planes in which the first and second members are located and affecting the spacing between the parallel planes, structures mechanically connecting the members and sidebars together so the (a) connecting structures, (b) elongated members and (c) and sidebars form a frame having a substantially open top between the spaced elongated members and sides with openings for enabling cooling air between the base floor and the raised floor to flow from outside the frame and through the top toward a panel in the raised floor with cooling air outlets, the first and second members having faces facing away from an interior portion of the

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frame, the faces of the first and second members including many data connectors for electromagnetic signals, the many data connectors included on the faces of the first and second members being at many different positions in the elongation direction of the first and second members.

37. The underfloor cable junction unit of claim **36** further including third and fourth horizontally extending elongated members respectively located in the first and second planes, the first and third members being vertically spaced from each other, the second and fourth members being vertically spaced from each other, the spacings between the first and third members and the second and fourth members forming openings for enabling cooling air to flow from outside the frame and through the top toward the panel, the third and fourth members having faces facing away from the interior portion of the frame, the faces of the third and fourth members including many data connectors for electromagnetic signals, the many data connectors included on the faces of the third and fourth members being at many different positions in the elongation direction of the third and fourth members.

38. The underfloor cable junction unit of claim **37** wherein the first and third members carry a plurality of the slide in electrical connector units that engage a face of the members facing toward the interior portion of the frame, the slide in units being arraigned so there is a gap between the slide in members on the first and third members, the gap being such that cooling air in the space

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between the base and raised floors can flow through the gap from outside the frame and through the top toward the panel.

39. The underfloor cable junction unit of claim 36 wherein the connecting structures include vertically extending posts to which the members and sidebars are mechanically connected.

40. The underfloor cable junction unit of claim 39 wherein the posts include feet for supporting the posts and the underfloor cable junction unit on the base floor, the spacing of the posts in the elongation direction of the members and the heights of the members above the base floor being sufficient to enable cables that extend in the same direction as the sidebars to pass between the posts.

41. The underfloor cable junction unit of claim 39 wherein the posts are connected together by struts for supporting the posts and the underfloor cable junction on the base floor, the spacing of the posts in the elongation direction of the members and the heights of the members above the base floor being sufficient to enable cables that extend in the same direction as the sidebars to pass between the posts and above the struts.